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WEB Status of Forces (WEBSOF)

System Administrator's Guide

Version 1.3

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1. INTRODUCTION

WEB Status Of Forces (WEBSOF) is a background process that works in conjunction with the Enhanced Linked Virtual Information System (ELVIS) to generate Status of Forces (SOF) information in a HyperText Markup Language (HTML) format for access by web browsers. WEBSOF is designed to run as a cron job. Version 1.3 supports Status of Resources and Training System (SORTS), Employment Schedule (EMPSKD), Casualty Report (CASREP), and Movement Report (MOVREP) data sets as contained in the Operations Support System (OSS) ORACLE database.

1.1 Storage Requirements

The hard disk storage requirements are estimated (based on experience at CINCPACFLT) as follows:

- € EMPSKD: 3KB per unit per fiscal quarter

  Total - 1.5MB for approximately 500 units
- € SORTS: 10KB per unit

  Total - 15MB for approximately 1500 units
- € CASREP: 10KB per unit (for open CASREPs) and 80KB per unit (for all CASREPs)

  Total - 5MB (open) and 40MB (all) for approximately 500 units
- € MOVREP: 5KB per unit

  Total - 500KB for approximately 500 units

At CINCPACFLT, the storage requirement for the SOF data is approximately:

1.5MB*(#FYQs) + 60MB.

In addition, each user should be nominally allocated 1MB for use by ELVIS.

2. WEBSOF OPERATIONS

For proper operation, WEBSOF and ELVIS require a JMCIS user account on the GCCS/JMCIS UNIX host. This will ensure WEBSOF runs in the proper environment.

WEBSOF is designed to run as a cron job. A default cycle setting of 6 hours is entered into the crontab during installation. This default setting can be modified by the system administrator. The WEBSOF process is read-only against the ORACLE database. In order to be self-regulating, the script checks if WEBSOF is already running and aborts if necessary (see Section 2.2, Status/Error Log).

The cron daemon launches the WEBSOF.csh script, which then runs the process WEBSOF (with various command line parameters) to produce HTML documents containing Naval Status Of Forces (NSOF) data. Currently, the supported data sets are SORTS, EMPSKDs (current quarter only), CASREPs (open and all), and MOVREPs (future or current). Links to the last 10 SORTS messages and to the latest CASREP message are provided (if available). Links to employment term descriptions and unit schedules are also embedded into the HTML documents for EMPSKDs.

If ELVIS/WEBSOF will be installed on multiple hosts on a LAN, then WEBSOF only needs to be installed on a single host and the /h/LVIS/data/pub/NSOF directory needs to be exported to the other ELVIS servers.

2.1 Unit Identification Code Processing

In each functional area, WEBSOF produces an HTML document for each Unit Identification Code (UIC) that appears in the appropriate table. The following tables are used to determine the relevant UICs (i.e., those with corresponding data sets):

- EMPSKD: UIC contained in ESS_EMPUNIT_SPLS
- SORTS: UIC contained in SORTSM_OVERALL
- CASREP: UIC contained in CASUALTY
- MOVREP: UIC contained in MOVREP_TRKID.

The HTML documents for the functional areas are stored in the appropriate directory located in /h/LVIS/data/pub/NSOF.

2.2 Status Log

A status log (called /h/WEBSOF/data/status.log) is available to review the behavior of WEBSOF. This log allows the system administrator to tune the crontab for best results.

A sample content of the WEBSOF status.log is shown below:

```
WEBSOF Started: Wed Feb 28 04:57:26 UTC 1996
-- CASREPS Started: Wed Feb 28 04:57:26 UTC 1996
-- MOVREPS Started: Wed Feb 28 06:19:07 UTC 1996
-- SKDS Started: Wed Feb 28 06:20:17 UTC 1996
-- SORTS Started: Wed Feb 28 06:22:14 UTC 1996
WEBSOF already running - ABORTED - Wed Feb 28 07:00:05 UTC 1996
============================
WEBSOF Completed: Wed Feb 28 07:18:35 UTC 1996
============================
WEBSOF Started: Wed Feb 28 13:00:26 UTC 1996
-- CASREPS Started: Wed Feb 28 13:00:26 UTC 1996
-- MOVREPS Started: Wed Feb 28 14:22:07 UTC 1996
-- SKDS Started: Wed Feb 28 14:23:17 UTC 1996
-- SORTS Started: Wed Feb 28 14:25:14 UTC 1996
WEBSOF Completed: Wed Feb 28 15:21:35 UTC 1996
============================
```

In this example, WEBSOF.csh was run manually at 04:57:26 (following an installation to "force" the generation of SOF HTML documents instead of waiting for the crontab launch time). At 07:00:05, the WEBSOF entry in the crontab caused WEBSOF.csh to be launched, whereupon it aborted after detecting that WEBSOF was already running. The manually-launched WEBSOF.csh continued to run and completed at 07:18:35 (after generating CASREPs, MOVREPs, EMPSKDS and SORTS). At 13:00:26, WEBSOF was launched again by the cron daemon, based on the default 6-hour cycle time in the crontab.

Note in this example CASREP generation completed in approximately 1.5 hrs, MOVREP and EMPSKD generation completed in less than 3 minutes total, and SORTS generation in less than 1 hour.

2.3 Error Log

An error log (called /h/WEBSOF/data/run.log) is available to review any error conditions encountered by WEBSOF in accessing the ORACLE database. All ORACLE errors will be logged to this file with the ORACLE error number and description.

A sample content of the WEBSOF status.log is shown below:

START: 29 0600Z FEB 1996

Published CASREP

END: 29 0711Z FEB 1996

==========

START: 29 0711Z FEB 1996

Published MOVREP

END: 29 0712Z FEB 1996

==========

START: 29 0712Z FEB 1996

Published EMPSKD

END: 29 0714Z FEB 1996

==========

START: 29 0714Z FEB 1996

Published SORTS

END: 29 0756Z FEB 1996

==========

START: 29 1300Z FEB 1996

Published CASREP

ERROR: oss/oss@

ERROR: ora_init_cursor: open:

ERROR: ora_open_db:

Publishing CASREPS: CASUALTY_ID failed to open

END: 29 1300Z FEB 1996

2.4 Command Line Parameters

The following command line parameters are available for tuning WEBSOF:

P:<product name>

This parameter determines the target data products, which currently include CASREP, MOVREP, EMPSKD and SORTS.

S:<start date>

This start date specifies the time period of interest (currently only used in EMPSKD generation).

E:<end date>

This end date specifies the time period of interest (currently only used in EMPSKD generation).

D:<destination directory>

This is the destination directory for the output. If blank, the output will be placed in the current directory. For use with ELVIS, output should be placed in the following directories:

- EMPSKD: /h/LVIS/data/pub/NSOF/CASREP
- SORTS: /h/LVIS/data/pub/NSOF/SORTS
- CASREP: /h/LVIS/data/pub/NSOF/CASREP
- MOVREP: /h/LVIS/data/pub/NSOF/MOVREP

T:<sleep time>

This time (in seconds) specifies the idle time of the WEBSOF process when generating HTML documents for each unit. The purpose of the sleep is to allow the system administrator to minimize the WEBSOF-generated activity against the ORACLE database.

The script /h/WEBSOF/progs/WEBSOF.csh contains additional comments about command-line parameters and tuning issues.

2.5 Database Configuration

WEBSOF uses a database configuration file (/h/WEBSOF/data/WEBSOF.dbi) for information needed to connect to ORACLE. A sample file listing is provided:

```
[SYSTEM]
    [DBM]           ORACLE
[END_SYSTEM]
[DBM]               ORACLE
    [LOGIN]         t:%ORACLE_SERVER%:oss
    [USER]          oss/oss
[END_DBM]
```

If the user/password for ORACLE is not oss/oss, then this configuration file needs to be modified appropriately. If WEBSOF has problems identifying the ORACLE server, then replace the variable %ORACLE_SERVER% with the ORACLE hostname.

3. ELVIS INTERACTION

ELVIS processes WEBSOF-generated HTML documents whenever a browser request is received for SOF data. Before delivering the documents, ELVIS inserts "state" information about the user, the display, and so forth, to facilitate user navigation through the links. WEBSOF embeds special text in the HTML documents, which is replaced with state information by ELVIS before submission to the browser.

3.1 UIC to Track Name Correlation

When a track in the ELVIS tactical display is hooked, ELVIS determines whether the track has a UIC, and, if available, a button bar appears to allow access to the SOF data. Although some options in the button bar appear active, no secondary check confirms which subsets of the SOF data are available; the only criteria for displaying the SOF button bar is the association of a UIC to the track name (as contained in Unified Build). ELVIS determines the availability of a UIC by performing a search in the resource file /h/LVIS/data/pub/units.txt. This file contains an alphabetized list of unit names, type, hull, and UIC. When a track name is found, a secondary check for type-hull is performed to ensure the correct UIC is retrieved, thereby avoiding problems with duplicate track names (e.g., DALLAS is both a Coast Guard cutter and a submarine).

The system administrator can add or edit entries in the units.txt file with any text editor, but it is important to preserve the alphabetical order. After changes are made, ELVIS must be restarted, which usually involves logging out/in to Unified Build. The SOF button bar can be completely

disabled by replacing the units.txt file with an empty file of the same name.

4. FUTURE IMPROVEMENTS

Future releases of GCCS/JMCIS may contain ORACLE triggers that allow WEBSOF to re-generate HTML documents dynamically for selective data sets, thereby eliminating the manual method of cron jobs.